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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/047,239	01/14/2002	Eugene Murphy O'Donnell	PU 020018	5554

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EXAMINER

DESIR, JEAN WICEL

ART UNIT	PAPER NUMBER
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2622

DATE MAILED: 10/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/047,239	Applicant(s) O'DONNELL ET AL.	
	Examiner Jean W. Désir	Art Unit 2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 7/27/06 (Reconsideration).
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,5,9 and 10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,5,9 and 10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 3, 5, 9, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Description of Related Art in the Background of the instant application in view of Jaffe et al (US 6,198,211 B1).

Claim 1:

the claimed "at least one imager comprising an array of pixels individually controllable in accordance with a video signal to form an image by passing red, green and blue light through said pixels" is disclosed, see Background of the instant application page 1 lines 13-18, 21-29, page 2 lines 5-11;

the claimed "and a projector lens optically coupled to said imager for magnifying and focusing said image for projection on a screen" is disclosed, see Background of the instant application page 1 lines 24-27;

the claimed "at least one red, at least one green and at least one blue resonant cavity cathode ray tube optically coupled to said imager and emitting, respectively, said red, said green and said blue light, to produce said image" is not explicitly disclosed in the Background of the instant application. The claimed invention is directed to light

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source coupled to the imager to produce image which is also disclosed by the Background of the instant application (see page 1 lines 21-29, see also page 2 lines 5-11); except the Background of the instant application does not teach resonant cavity cathode ray tube as claimed; However, resonant cavity cathode ray tubes that emit red, green, and blue light are notoriously well known devices in the art (as evidence see Jaffe at Fig. 12, col. 15 lines 27-39, col. 20 lines 29-34, col. 20 lines 62-67) used to provide light source that would produce high brightness levels and that is highly directional. Thus, an artisan would be motivated to combine the references to arrive at the claimed invention; this combination would advantageously provide high brightness levels and highly directional light sources. Therefore, the claimed invention would have been obvious to a person of ordinary skill in the art at the time the invention was made. Claim 3 is disclosed, see Jaffe at Fig. 12, and Background of the instant application at page 2 lines 5-11.

Claim 5 is also disclosed in view of the above combination, because Applicants admit that "optical combiner" is conventional see specification page 8 lines 7-9.

Claim 9 is rejected for the same reasons as claim 1, because the Background of the instant application teaches **LCOS** imagers, see page 1 lines 17-29.

Claim 10 is rejected for the same reasons as claim 5.

Oath/Declaration

3. The oath or declaration is missing.

A properly signed oath or declaration in compliance with 37 CFR 1.63, identifying the application by the above Application Number and Filing Date, is required.

Response to Arguments

4. Applicant's arguments have been fully considered but they are not persuasive.

Applicants argue on page 3 of the REMARKS that "There is no suggestion in Jaffe to optically couple the **resonant cavity cathode ray tube** to an imager. A teaching of a resonant microcavity display (RMD) alone is not a teaching to use an RMD in a CRT. More significantly, a teaching to use an RMD in a CRT is not a teaching to optically couple the resulting CRT further to an imager". These arguments are not persuasive, Jaffe clearly teaches using **RMD in a CRT to produce light** (see Figs. 9, 12, col. 15 lines 36-39, col. 14 lines 52-53) that can be used as **light source**, as pointed out in the rejection; and the Background of the instant application teaches **light source that is optically coupled to the imager to produce image**, as pointed out in the rejection; thus, there is clear suggestion and/or motivation to combine the references to arrive at the claimed invention, as pointed out in the rejection.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

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TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jean W. Désir whose telephone number is (571) 272 7344. The examiner can normally be reached on 5/4/9 - First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David L. Ometz can be reached on (571) 272 7593. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

7. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JWD
Oct. 4, 06



DAVID OMETZ
SUPERVISORY PATENT EXAMINER